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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,623	03/19/2004	Willy H. Piret	25406A	7845
22889	7590	12/16/2004	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,623

Applicant(s)

PIRET ET AL.

Examiner

Rip A. Lee

Art Unit

1713

PA

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-20 is/are rejected.
- 7) ☒ Claim(s) 1 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07272004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 1 and 3 are objected to because of the following informalities: The term "copolymerizable" should be replaced with "copolymerized" in order indicate clearly that the claimed material is, indeed, a copolymerizate. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, and 4-9, 11-14, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,945,134 to Strait *et al.*

Strait *et al.* discloses an aqueous precursor sizing composition comprised of coupling agents (A-1100 organosilane), lubricants (Emmerlube 6760U), and non-ionic surfactant, or wetting agent, (PEG 400 monostearate) for treating glass fiber; (see table, col. 5). After treatment with a precursor size, the glass fibers are sized with another composition that contains binder and other components such as wetting agents, film formers, coupling agents, and lubricants (col. 5, lines 59-64). According to the table shown in column 6, one binder contains the partial ammonium salt of butadiene-maleic anhydride copolymer (Maldene 286). As such, the two-part sizing composition of present claims 1, 2, and 4-9 is taught in Strait *et al.*

The glass fiber is made into a densified glass fiber pellet (claim 1 and abstract, line 1), and therefore, the glass fiber product of present claims 11-14 and 16 lies within the disclosure of Strait *et al.* The pellets are then used to form composite articles (see abstract, line 9). It follows that the composite article of present claims 17-20 is also taught in the prior art.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,945,134 to Strait *et al.* in view of U.S. Patent No. 5,811,480 to Kirchmeyer *et al.*

The discussion of the disclosures of the prior art of Strait *et al.* from paragraph 13 of this office action is incorporated here by reference. Although Strait *et al.* teaches a two-part sizing composition for glass fibers, there is no indication as to the type of glass used in the production of the glass fiber. Kirchmeyer *et al.* teaches that E-, A-, C-, and S-glasses are used

conventionally for the production of glass fibers (col. 2, line 45), and therefore, it would have been obvious to one having ordinary skill in the art to use the sizing composition of Strait *et al.* to treat glass fibers that are made from these glasses because the skilled artisan would expect the treatment to work for all types of glass fiber. The combination is obvious because both references relate to treated glass fibers.

Allowable Subject Matter

7. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if amended to overcome the claim objection (*supra*) and if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There is no teaching or suggestion in the prior art which would have prompted one of ordinary skill in the art to use the secondary binder copolymers listed in the present claim.

The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure.

U.S. Patents No. 3,816,235 to Lin and 5,972,503 to Woodside and JP 60-44535 teach glass fiber treated with maleic anhydride/butadiene copolymer. The size compositions differ from that presently claimed in that they are not two-part size compositions.

JP 3-80135 teaches a single-part size composition comprised of a terpolymer of ethylene-ethylacrylate-maleic anhydride for treating glass fiber.

U.S. Patents No. 4,609,591 to Pollet *et al.* and 5,324,755 to Kilius *et al.* disclose glass fibers treated with ethylene-ethylacrylate copolymer. The polymer is not copolymerized with maleic anhydride, as (apparently) required by the present claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



Rip A. Lee

December 9, 2004